

Abstract

This invention relates to a method of producing a hollow inorganic membrane that is particularly suitable for solid oxide fuel cell applications, as well as producing hollow inorganic composite laminated membranes having at least one such hollow inorganic membrane. The method comprises electrodepositing an inorganic material that includes at least some electrically conductive metal and some ionically conductive ceramic onto an electrically conductive combustible core, drying the core bearing the deposited inorganic material, then, sintering the core bearing the deposited inorganic material such that the core combusts, thereby producing a hollow inorganic membrane. The method may further comprise electrophoretically depositing a ceramic composition onto the hollow inorganic membrane, to produce an assembly of hollow inorganic composite laminated membranes.